

**Preliminary Draft Analyses  
of Federal Management Options  
in Response to the Recommendations  
Contained in Amendment 6 to the  
Atlantic States Marine Fisheries Commission's  
Striped Bass Interstate Fisheries Management Plan**

**April 2006**

## **Reviewers of this Document**

Typically, after publishing an advance notice of proposed rulemaking (ANPR) and a notice of intent to prepare an environmental impact statement (NOI), and holding scoping meetings, NOAA Fisheries would publish its Draft EIS at this stage of rulemaking. However, due to the significant time that had passed since the initial scoping hearings, together with the tremendous public interest in this matter, NMFS is seeking additional scoping in order to be especially deliberate, responsive and transparent. The agency is interested in comments on its preliminary draft analysis, as well as commentary on the scope of options as identified in the earlier ANPR and NOI Federal Register filings; i.e., on additional significant issues which should be addressed in a DEIS. At this time, no preferred option has been identified in this analysis.

Written comments should be sent to: Tom Meyer, State-Federal Fisheries Division, Office of Sustainable Fisheries, NMFS, 1315 East West Highway, Room 13248, Silver Spring, MD 20910. Mark the outside of the envelope “Striped Bass Scoping.” Comments may also be sent via fax to (301) 713-0596, or via e-mail to: [Striped-Bass.Comments@noaa.gov](mailto:Striped-Bass.Comments@noaa.gov). Include in the subject line of the fax or e-mail the following document identifier: Striped Bass Scoping.

Reference Documents – An electronic copy of the Federal Register notices for the ANPR, NOI, and for further scoping are available on the State-Federal Fisheries Division’s website under *Regulatory Activities* at [http://www.nmfs.noaa.gov/sfa/state\\_federal/state\\_federal.htm](http://www.nmfs.noaa.gov/sfa/state_federal/state_federal.htm). Copies of ASMFC’s Amendment 6 and the 2004 and 2005 Stock Assessment Reports are available under on ASMFC’s website at <http://www.asmfc.org> under *Interstate Fisheries Management-striped bass*.

## TABLE OF CONTENTS

I.	Introduction	4
II.	Background	4
	A. ASMFC Management – Amendment 6	4
	B. Secretarial Management	5
III.	Potential Impacts of Management Options	8
	A. Option 1 - ASMFC Recommendation	8
	1. Ecological Impacts	9
	a. Commercial Fishery Impacts	9
	b. Recreational Fishery Impacts	11
	c. Summary of Ecological Impacts	13
	2. Economic Impacts	13
	3. Social Impacts	14
	B. Option 2 - Modified ASMFC Recommendation, incorporating catch limits	14
	1. Ecological Impacts	15
	a. Commercial Fishery Impacts	15
	b. Recreational Fishery Impacts	16
	c. Summary of Ecological Impacts	17
	2. Economic Impacts	17
	3. Social Impacts	18
	C. Option 3 - Modified ASMFC Recommendation, incorporating catch limits and gear restrictions	18
	1. Ecological Impacts	19
	a. Commercial Fishery Impacts	19
	b. Recreational Fishery Impacts	20
	2. Economic Impacts	20
	3. Social Impacts	21
	D. Option 4 - No Action - status quo – maintain moratorium in EEZ	21
	1. Ecological Impacts	21
	2. Economic Impacts	21
	3. Social Impacts	21
IV.	Habitat and Protected Species	22
	A. Impacts on Essential Fish Habitat	22
	B. Impacts on Protected Species	23
	Table 1. Summary of Management Measures Under Each Option	26
	Appendix 1. Measures Considered but not Further Analyzed	27

## **I. Introduction**

This document provides preliminary draft analyses for public comment on various Federal management options in response to the recommendations made by the Atlantic States Marine Fisheries Commission (ASMFC) in Amendment 6 of the Atlantic Striped Bass Interstate Fishery Management Plan (Amendment 6) to open the EEZ to striped bass fishing.

## **II. Background**

### **A. ASMFC Management – Amendment 6**

In February 2003, ASMFC adopted Amendment 6 replacing all previous amendments and addenda. The stated goal of Amendment 6 is:

"To perpetuate, through cooperative interstate fishery management, migratory stocks of striped bass; to allow commercial and recreational fisheries consistent with the long-term maintenance of a broad age structure, a self-sustaining spawning stock; and also to provide for the restoration and maintenance of their essential habitat"

In support of this goal, Amendment 6 adopted the following objectives:

1. Manage striped bass fisheries under a control rule designed to maintain stock size at or above the target female spawning stock biomass level and a level of fishing mortality at or below the target exploitation rate.
2. Manage fishing mortality to maintain an age structure that provides adequate spawning potential to sustain long-term abundance of striped bass populations.
3. Provide a management plan that strives, to the extent practical, to maintain coastwide consistency of implemented measures, while allowing the States defined flexibility to implement alternative strategies that accomplish the objectives of the ISFMP.
4. Foster quality and economically viable recreational, for-hire, and commercial fisheries.
5. Maximize cost effectiveness of current information gathering and prioritize state obligations in order to minimize costs of monitoring and management.
6. Adopt a long-term management regime that minimizes or eliminates the need to make annual changes or modifications to management measures.
7. Establish a fishing mortality target that will result in a net increase in the abundance (pounds) of age 15 and older striped bass in the population, relative to the 2000 estimate.

Amendment 6 attempts to achieve its goals and objectives through numerous means, including the establishment of new target and threshold fishing mortality rates and spawning stock biomass levels, new quotas, minimum sizes and bag limits. The Amendment also recommends that the federal government promulgate regulations to implement complementary measures to allow the harvest of striped bass in the EEZ. Specifically, ASMFC recommends that the harvest of striped

bass in the EEZ be restricted to a minimum size limit of 28 inches (total length), and that the states be given the ability to adopt more restrictive regulations for fishermen and vessels licensed in their states (for further details on ASMFC's recommendations to the Secretary, see Reference Documents on page 2 for website to access Amendment 6, section 4.9). In addition, Amendment 6 discusses the ASMFC intent, under adaptive management, to recommend additional measures to the Secretary, should the status of the striped bass stock result in the need for such changes. .

## **B. Secretarial Management**

The Secretary implemented a Federal ban on the harvest and possession of Atlantic striped bass in the EEZ, in November 1990, to support ASMFC efforts to recover striped bass along the east coast. In July 1995, after declaring the striped bass stock to be restored as of January of that year, ASMFC recommended that NOAA Fisheries open the EEZ to striped bass fishing. NOAA Fisheries published a proposed rule to do so, on September 27, 1995 (60 FR 49821). However, on December 11, 1995, ASMFC requested that NOAA Fisheries maintain the moratorium until at least 1997, when states were scheduled to increase harvest to levels reflecting the long-term sustainability of a fully recovered stock. The ASMFC request was based on the Atlantic Striped Bass Management Board's concerns about enforcement in the EEZ and possible loopholes in state landing laws that might allow EEZ harvested fish to be landed in a manner inconsistent with appropriate state laws. The delay was intended to allow legal and enforcement concerns to be addressed. NOAA Fisheries withdrew its proposed rule to open the EEZ to striped bass fishing on December 5, 1996 (61 FR 64497).

NOAA Fisheries received several requests, during the period 1997 through 2002, for the full or partial opening of the EEZ to striped bass fishing and harvest. However, those requests either did not meet the requirements of the Striped Bass Act, or did not provide sufficient information for NOAA Fisheries to adequately evaluate the impacts or merits of the request. One such request, to open the EEZ out to 12 miles offshore while granting management authority for striped bass in those waters to the states, was determined to not be allowed under either the Striped Bass Act, or the MSA, which establishes Federal jurisdiction throughout the EEZ. Another request, to remove the Federal moratorium in the entire EEZ, did not provide for alternative management measures in the EEZ to ensure that the conservation and management goals for the striped bass resource would be achieved. In a February 2002 response to these requests, NOAA Fisheries stated that it did not believe it was prudent or feasible, at that time, to withdraw the moratorium on the basis of either of the two suggested scenarios. Instead, NOAA Fisheries stated that the extent to which an EEZ fishery may be consistent with the overall conservation and management program for Atlantic striped bass should be resolved within the context of Amendment 6 to the ISFMP. The response also stated that NOAA Fisheries would consider any recommendations regarding complementary management measures in the EEZ, developed through the Amendment 6 process, and would cooperate with ASMFC on this issue.

NOAA Fisheries' personnel cooperated in the development of Amendment 6, through participation on the ASMFC Atlantic striped bass plan development team, plan review team, technical committee, stock assessment and other subcommittees, fishery management board, and its policy board. To assist the Secretary in developing compatible Federal striped bass regulations under the Striped Bass Act, ASMFC included recommendations in Amendment 6

(Section 4.9), for specific measures to be implemented in the EEZ. These recommendations to the Secretary were included in the public review process when Amendment 6 was being developed and provide an important starting point for the development of Federal regulations that meet the requirements of Section 5158 of the Striped Bass Act.

ASMFC approved Amendment 6 on February 26, 2003, including the recommendations to the Secretary. ASMFC forwarded these recommendations to the Secretary in a letter dated April 24, 2003. Specifically, the letter requested that the Secretary do three things: (1) remove the moratorium on the harvest of striped bass in the EEZ; (2) implement a 28-inch (71.1 cm) minimum size limit for the recreational and commercial striped bass fisheries in the EEZ; and (3) allow states the ability to adopt more restrictive rules for fishermen and vessels licensed in their jurisdiction. In support of its request, ASMFC provided the following information and rationale to justify opening the EEZ to striped bass fishing:

Management of Atlantic striped bass in the EEZ was one of the issues that was considered throughout the development and review process of Amendment 6. Based on the available information the Atlantic Striped Bass Management Board determined that Amendment 6 would include a recommendation to the Secretary to open the EEZ to fishing for and possessing striped bass in the EEZ. Throughout the Board's discussions there were numerous rationale supplied to justify opening the EEZ. The rationale are listed below:

- In 1995, due in part to a closure of the EEZ in 1990 to striped bass harvest, the population of this species was declared fully restored by ASMFC. The purpose of closing the EEZ was to protect strong year classes entering the population and to promote rebuilding of the overfished population.
- The commercial harvest is controlled by hard quotas; when they are reached the fishery is closed; and any overages are taken out of next year's quotas. The commercial quota could be landed regardless of whether or not the EEZ is opened.
- Currently, recreational and commercial catches are occurring in the EEZ and these fish are required to be discarded. Opening the EEZ will convert some discarded bycatch of striped bass to landings.
- Because of management measures implemented since 1990, the striped bass population has recovered to a point where further examination of whether this fishery should occur in the EEZ is appropriate. There are expectations among a number of fishing industry stakeholders that their part sacrifices would result in future opportunities to harvest striped bass, and therefore, there are potential credibility issues associated with keeping the EEZ closed, especially in light of the current status of the striped bass stock.
- The recommendation to open the EEZ is part of Amendment 6, which incorporates new management standards to ensure stock conservation including

targets and thresholds for both mortality and spawning stock biomass. Fishing mortality is currently below the threshold level, and spawning stock biomass is above the threshold level.

- Amendment 6 includes monitoring requirements and triggers that will allow ASMFC to respond quickly to increased mortality.
- The bulk of the public comment (greater than 75%) received in opposition cited expansion of the commercial fishery as rationale not to open the EEZ. ASMFC believes the rationale is incorrect because the commercial fishery is controlled by a hard quota.

ASMFC also stated that its Atlantic Striped Bass Technical Committee would monitor annually the Atlantic striped bass population, and, if at some point in the future ASMFC determines that the Atlantic striped bass population is overfished or that overfishing is occurring, it may recommend further management measures for the EEZ.

NOAA Fisheries initiated the public process for determination of whether such a reopening is appropriate by publishing an Advance Notice of Proposed Rulemaking (ANPR) with a 30 day comment period, on July 21, 2003 (68 FR 43074). The comment period was subsequently reopened for an additional 30 days on August 26, 2003 (68 FR 51232). The ANPR stated that NOAA Fisheries is considering proposed rulemaking to revise the Federal striped bass regulations to be compatible with Amendment 6 and is seeking comments on possible management measures and issues that NOAA Fisheries should consider relative to ASMFC recommendations to the Secretary to open the EEZ. NOAA Fisheries posted all comments received during the ANPR's 60-day comment period on the State-Federal Fisheries Website.

After review of comments received in response to the ANPR, NOAA Fisheries determined that there were sufficient issues raised, both in support of and in opposition to the ASMFC recommendation, to warrant further evaluation of the potential impacts of opening the EEZ to striped bass fishing. That determination resulted in the initiation of a decision-making process required under the National Environmental Policy Act (NEPA). NOAA Fisheries published a "Notice of intent to prepare an Environmental Impact Statement (EIS) and notice of scoping process; request for comments" in the Federal Register on October 20, 2003 (68 FR 59906). The notice presented a summary of the ANPR comments, and requested further public input on a list of potential alternatives and other management measures which were proposed during the ANPR comment periods. Public meetings were held in nine Atlantic coast states, between November 5 – December 10, 2003, and a public comment period was opened until December 22, 2003, to identify the scope and significance of issues and management alternatives that should be considered in development of the EIS. In addition, NOAA Fisheries consulted with the New England, Mid-Atlantic and South Atlantic Fishery Management Councils through presentations and discussions of the ASMFC recommendation, during scheduled portions of Council meetings. A summary of results of the scoping and consultation processes was posted on the State-Federal Fisheries website. NOAA Fisheries stated that once a Draft EIS (DEIS) was complete, public hearings would be held to receive comments on the alternatives that were evaluated and on any proposed actions that may result from the DEIS.

In September 2004, while the DEIS was being developed, ASMFC's Striped Bass Technical Committee (Technical Committee) completed its 2004 stock assessment, which included data through the 2003. That assessment contradicted previous assessments, which had indicated that the striped bass population was not overfished and continued to grow in abundance. Instead, the results of the modeling portion of the 2004 assessment indicated that the stock was overfished and that spawning stock biomass had been reduced to below target levels. However, the members of the Technical Committee did not feel the assessment provided an accurate representation of stock status, especially given that results of tagging study analyses did not show a similar increase in fishing mortality. The Technical Committee recommended the 2004 assessment results not be used for management decisions until both the modeling software and the input data sets were reevaluated during the 2005 assessment process. Due to those uncertainties, NOAA Fisheries decided to hold off the completion and release of a DEIS until the stock assessment scientists were confident that their analyses provided, with a reasonable level of certainty, an accurate picture of the status of the coastwide striped bass population.

During 2005, the Technical Committee and Stock Assessment Subcommittee reviewed model inputs and the model itself to determine if the results from the 2004 assessment truly reflected status of the population or were an artifact of data or model errors. They concluded that a number of the indices used in the 2004 effort were not consistent with what was observed in the population as a whole, or were contradictory to the majority of other reliable time series. Those indices were removed from subsequent model runs. The Technical Committee believes the current assessment reflects the true status of the population (within reasonable ranges of certainty).

NOAA Fisheries has incorporated the results of the 2005 assessment in this document. However, due to the significant time that had passed since the initial scoping hearings (caused by the uncertainty in the 2004 striped bass stock assessment), together with the tremendous public interest in this matter, NMFS is seeking additional scoping in order to be especially deliberate, responsive and transparent.

### **III. Potential Impacts of Management Options**

A summary of the various management measures considered under each option is presented in Table 1. In addition to the four options analyzed below, other management measures suggested during the nine scoping meetings held in the winter of 2003 were not chosen as options in this draft document for the reasons listed in Appendix 1.

#### **A. Option 1 - ASMFC Recommendation**

This option would adopt the ASMFC Recommendation to the Secretary, which includes the following measures:

- (1) Remove the moratorium on the harvest and possession of striped bass in the EEZ;



- (2) Implement a 28-inch (71.1 cm) minimum size limit for the recreational and commercial striped bass fisheries in the EEZ; and
- (3) Allow states the ability to adopt more restrictive rules for fishermen and vessels licensed in their jurisdiction.

The ASMFC Recommendation incorporates the coastwide commercial quota and the related state allocations of that quota, but does not address other specific measures. However, by allowing more restrictive state measures to apply to fishers from a state, each state's specific measures are also considered in this option.

## **1. Ecological Impacts**

As discussed in this following sections, Option 1 would not be expected to result in any significant environmental impacts because of the restrictive fishing controls already implemented by the states under Amendment 6. Specifically, the agency must determine whether this option would result in increased fishing pressure in the EEZ, as well as increased pressure on the stock in general. Any increased EEZ effort will likely be minimal and offset by an equally small decrease in nearshore fishing effort, and that the option would likely not increase fishing pressure on the stock, but in fact, might result in some small decrease in effort in some areas.

### **a. Commercial Fishery Impacts**

Option 1 could result in both directed and non-directed commercial striped bass fishing in the EEZ, but the impacts from this fishing may be minimal because already existing state regulations and commercial quota allocations would limit the potential for development of a directed fishery in the EEZ. For example, of the major gear types reporting catches of striped bass in state waters, only hook and line, anchor and drift gillnets, and otter trawls are feasible for fishing in the EEZ. Those four gears represented about 95% of the catch of striped bass by weight in state coastal waters, in 2002. However, this option allows more restrictive state laws to apply to fishers and vessels licensed by a state, and those states that allow commercial fisheries for striped bass (Massachusetts, Rhode Island, New York, Delaware, Maryland, Virginia, and North Carolina) specifically have more restrictive gear prohibitions.

In New England, Massachusetts and Rhode Island gear restrictions prohibit trawling and gillnetting for striped bass by commercial striped bass fishermen. As such, this option would likely result in a hook and line fishing only, in the EEZ off of these states. While Rhode Island does allocate a portion of its state quota to trap fishers, traps are fished only in nearshore areas. In addition, Maine, New Hampshire, and Connecticut have given striped bass gamefish status, thereby prohibiting commercial harvest of this species. Therefore, it seems likely that this option would not result in directed commercial trawl or gillnet fishing in the EEZ anywhere off New England.

Trawling restrictions also exist in the states south of New England. New York, Maryland, and North Carolina allow the capture of striped bass by trawls, but Maryland and New York have limits on the number of participants in the striped bass fishery and North Carolina controls its coastal ocean trawl fishery with strict landing limits. For example, in 2005 the North Carolina

fishery was allowed to operate for only five days, and the catch was restricted to no more than 50 fish per vessel-day during that five-day season. New York requires tags, which cannot be transferred, and limits the capture of striped bass to no more than seven fish per vessel per trip, for vessels fishing with trawls. New Jersey has designated striped bass a gamefish and does not allow any commercial harvest. Accordingly, this option will not likely result in a shift of fishing effort from other fisheries or sectors into the commercial striped bass trawl fishery.

Gillnets could also operate in Federal waters if the EEZ were opened for striped bass fishing, but again, states restrict landings by this gear. As has been previously stated, the New England states prohibit the targeting of striped bass by gillnets. The New York gillnet fishery has restrictions on the number of participants, requires tags, and the tags cannot be transferred. In addition, New York restricts fishermen using gillnets with larger than 6" – 8" mesh, to a seven fish bycatch trip limit. Delaware allows gillnet fishing, but requires tags that cannot be transferred except among individuals allowed to take striped bass. Maryland also allows gillnets, but has a limit on the number of participants, and requires individuals to have a striped bass permit. Virginia also permits the use of gillnets for taking striped bass, but also requires tags and has limits on the number of individuals who can participate in the striped bass fishery. North Carolina has an Atlantic coastal ocean gillnet fishery, but the season is very short. In 2004, the fishery occurred over four days in early January; individuals were restricted to no more than 10 striped bass per person per day, or 20 fish per day if there was more than one individual holding a standard commercial fishing license (SFL) on the vessel. In 2005, this fishery was open for only 2 days. As a result, this option will not likely result in a shift of fishing effort from other fisheries or sectors into the commercial striped bass gillnet fishery.

Even though this option would likely not result in a shift into the commercial striped bass fishery, or a shift across fishing gears within the commercial sector, there still exists concern whether commercial fishing pressure on the stock or in the EEZ would increase. However, this concern has been addressed by implementation of Amendment 6. That is, regardless of where striped bass would be commercially caught, in state waters or the EEZ, and regardless of the gear used, Amendment 6 places a fixed quota on the commercial catch. And because commercial quotas are capped under Amendment 6, and given that this option provides that more restrictive measures for each state would apply to vessels registered in that state, there is no expectation that this option would result in increased striped bass mortality from commercial fishing. Nor does it suggest any measurable shift in commercial effort into the EEZ. State quotas are reached within state waters so there would be little incentive to shift effort further offshore, where commercial fishing costs would be greater (fuel costs, steaming time, etc.). Further, to whatever minimal extent a fisherman chooses to target striped bass in the EEZ, there is decreased inshore fishing by that same extent.

Option 1 would likely result in an overall decrease in commercial striped bass mortality. Presently, some striped bass are caught as bycatch by fishers targeting other species. As such, they are caught in nets, hauled into the boat then discarded back into the water, often dead. This bycatch occurs in both state and EEZ waters and because it is incidental to other acts occurring in other fisheries, it would likely continue irrespective of the EEZ's opening or closure or actions otherwise taken in this present rulemaking. Option 1, however, may allow some vessels that currently direct on other finfish in the EEZ and discard striped bass as bycatch, to harvest a

portion of that bycatch, if allowed by their state's regulations. To the extent that this would occur, striped bass bycatch mortality would be reduced and harvestable bycatch could be counted toward the state's quota allocation. In so doing, the state's commercial quota would be more quickly filled, therein potentially resulting in a quicker closure of the state's commercial fishery and an overall decrease in directed commercial striped bass fishing by fishers of that state.

Therefore, there would likely be no increase in overall commercial effort directed at striped bass under this option, and that any shift in such effort from state waters to the EEZ is not expected to be a significant. Of the gears that are likely to commercially fish for striped bass if the EEZ were to open, hook and line gears are not expected to impact essential fish habitat, and although they have been identified as interacting with marine mammals and turtles, such interactions are expected to be minimal. This is because the directed striped bass fisheries are minor relative to other fisheries using this gear, and any shift to the EEZ would be balanced by a reduction in effort in state waters. Otter trawls and gillnets -- the other 2 gears that could direct at striped bass if the EEZ were opened -- have been identified as having potential impacts on both EFH and protected resources. But again, any shift to the EEZ would likely result in a comparable reduction of effort in state waters since the state commercial quotas would not change. Further, the majority of trawl and gillnet catch of striped bass in the EEZ would be as bycatch in other directed fisheries, thereby decreasing striped bass bycatch mortality and potentially decreasing overall striped bass mortality (see Section IV(A) paragraph 2 for directed fisheries with bycatch). As a result, adverse commercial impacts of Option 1 are expected to be minimal, and it might have an overall positive impact by reducing striped bass mortality.

## **b. Recreational Fishery Impacts**

Option 1 would open the EEZ to recreational striped bass fishing, but, similar to the commercial sector, the impacts of such would likely be minimal. Specifically, Option 1 would allow recreational fishers, fishing in the EEZ on charter, head or private boats for other species to retain striped bass with a minimum size of 28", instead of discarding them, as currently required. It would also allow anglers to go to the EEZ specifically to catch striped bass. It is difficult to predict with great certainty how the recreational fishery might be affected if the EEZ were opened to recreational angling of striped bass. However, review of the best available data and past activities when the EEZ was opened suggest that there would be little change in the fishery in most areas of the coast. Given that the Marine Recreational Fishery Statistics Survey (MRFSS) data indicate that striped bass were landed from the EEZ between 1990 and 2002, it is highly likely that more trips will be taken to the EEZ if it were opened. At the same time, creel and size limits and implicit quotas prevent the additional capture and landing of striped bass. Charter operators and private boat owners from New York, Maryland, Virginia, and North Carolina may increase their number of trips to the EEZ. However, interviews with the charter boat industry indicate that only 2.5% expect to book trips solely for the purpose of fishing for striped bass in the EEZ. Additionally, this 2.5% would not be new effort, but instead a shift in existing effort (e.g., trips previously scheduled for state water being re-charted for the EEZ). Most for-hire vessels fish for a mixture of species and the restrictive bag limits for striped bass would likely result in striped bass being just one of several species taken on any angler fishing trip.

State regulations presently restrict the capture and possession of striped bass, regardless of the area caught. Any reallocation of fishing effort from the Atlantic coastal and inshore fisheries to the EEZ would depend upon the additional perceived benefits vs. the costs by anglers of going farther offshore and the potential profit of charter operators. It is also possible that larger catches of striped bass would be taken in the overall ocean fishery, at least in the short run. If so, higher catches in one year could result in changes in the regulations affecting the catch in the following year in order to control fishing mortality. This could reduce benefits to beach and shore anglers, however, there is no adequate way to analyze this possibility.

While this option does not include a recreational bag limit, state regulations do restrict anglers to a limited number of striped bass taken per day. Presently, the state of New York allows only one fish; with New Jersey's commercial quota being allocated to its bonus fish program, New Jersey may permit anglers up to three fish, if they meet the 28" minimum size; and the remainder of the states would allow two fish, which is the coastwide standard set by Amendment 6. Given these state bag limit restrictions, there is not expected to be a significant increase in the overall harvest of striped bass or a significant shift in fishing from state waters to the EEZ, by the recreational sector. Most striped bass are likely to be taken during trips already occurring in the EEZ for other species, and those fish would now be able to be kept, so long as they are within bag and size limits. However, it is uncertain the extent to which anglers, fishing for other species, would be interested in keeping striped bass, and even if EEZ-caught striped bass were kept, once the bag limit is reached an angler would not be able to take additional striped bass when they returned to state waters. Therefore, the overall catch is not expected to increase significantly. While private vessel owners may chose to fish specifically for striped bass in the EEZ, those vessels are likely already fishing for striped bass in state waters, or for other species in the EEZ. That is, there is not expected to be an increase in angler trips by private boat owners solely because the EEZ were to be opened.

It is also unlikely that recreational fishers who do not already fish for striped bass from private boats would purchase a private boat to catch the few striped bass allowed under state regulations. Striped bass have been plentiful in state waters for a number of years, and if anglers did not purchase vessels to catch them previously, there is no reason to assume they would do so just so they could fish for striped bass in an area further from shore. In fact, when the EEZ was previously open to striped bass catch and harvest, an average of less than 4% of the total recreational catch was taken from the EEZ (NMFS, 1990 - MRFSS, prior to 1987). However, there are a few areas in the EEZ where recreational anglers are expected to direct effort for striped bass, though catches from such areas are not expected to be significant relative to the total coastwide recreational harvest. These areas include fishing grounds around Nantucket Island; off southern New Jersey, and just beyond North Carolina state waters.

Relative to impacts on the ecosystem, the recreational fishery, using hook and line gear, is not expected to impact essential fish habitat, and since the number of angler trips is not expected to increase, no additional interactions with protected resources are expected.

### **c. Summary of Ecological Impacts**

Option 1 is not likely to result in significant adverse impacts to striped bass due to commercial or recreational fishing, however it may not provide adequate safe guards against the possibility for increased mortality in the EEZ, should state regulations change in the future. This option does not include provisions for commercial or recreational daily or trip catch limits, and therefore does not specifically address concerns raised during the public comment and scoping process, about increased effort and/or directed fishing for striped bass in the EEZ. An identified weakness of the ASMFC Recommendation (Option 1) is that it is silent on the issue of bag or trip limits for recreational and commercial fishermen, who may chose to fish for striped bass in the EEZ. In order to fully support the ability of the states to adopt more restrictive measures for their fishermen, and to prevent significant increases or shifts in distribution of effort in the striped bass fishery to the EEZ, it may be necessary to include daily or trip limits for both commercial and recreational fishers in any regulations that would open the EEZ to the fishing for or harvest of striped bass.

### **2. Economic Impacts**

The impacts of Option 1 to the commercial striped bass fishery are likely to be minor, and potentially positive for some portions of the fishery. That is, Option 1 may allow some vessels currently directing their fishing on other finfish in the EEZ to retain striped bass that are currently discarded, so long as they meet minimum size limits, are allowed by state regulations, and are within a state's quota. In such a scenario, boats presently catching and discarding striped bass would be positively impacted by Option 1 because they would now be able to land and profit from more species (i.e., striped bass) that are harvested in their gear without expending any additional fishing effort, if permitted by state regulations. However, to the extent that currently discarded bycatch from the EEZ are landed and counted toward a state's quota, the remaining quota available to that state and its commercial vessels that fish for striped bass would be reduced. As such, this option may have some small positive economic impact to participants in the commercial fishery, although the benefit would be accrued primarily to those commercial vessels that presently catch and discard striped bass as bycatch in the EEZ. However, given current state restrictions on their commercial striped bass fisheries, the extent of any such shift in who lands striped bass is expected to be minimal.

As noted in Section III(A)(1)(b), above, there is not expected to be a significant increase in recreational striped bass harvest or a significant shift in fishing from state waters to the EEZ under this measure. Except for traditional fishing grounds off Nantucket Island, southern New Jersey and off North Carolina, where anglers may direct effort toward striped bass in the EEZ, most striped bass are likely to be caught and retained by recreational fishermen already fishing in the EEZ for other species. It is also unlikely that recreational fishers who are not currently fishing in the EEZ would purchase a new boat to catch the few striped bass allowed under state regulations. Recreational fishermen would also be subject to current state regulations, which may restrict their citizens further than this proposed option. Charter boats are not expected to change their existing fishing behavior, as they now fish for a several species and the restrictive bag limits for striped bass would not likely result in fishing trips only for striped bass in the EEZ. Also charter vessels would not be likely to increase significantly their fishing for striped bass in

the EEZ given the small number of fish that can be retained versus the additional fuel costs to travel into the EEZ.

### **3. Social Impacts**

Option 1 may allow some commercial vessels currently directing their fishing on other finfish in the EEZ to retain striped bass that are currently discarded. The retention and landing of these striped bass would, however, be controlled by existing state regulations and state quotas. As such, this option is not expected to have any significant social impact beyond the existing status quo for commercial fishers. However, the ability to keep a limited number of striped bass caught in the EEZ is likely to have a positive social impact for recreational anglers, especially for those fishing on traditional striped bass fishing grounds, as noted above.

#### **B. Option 2 - Modified ASMFC Recommendation, incorporating catch limits**

This option would adopt the ASMFC Recommendation with the addition of management measures that were suggested during the scoping process, including trip or bag limits and the use of circle hooks in all hook and line fisheries that use bait, as follows:

- (1) Remove the moratorium on the harvest and possession of striped bass in the EEZ;
- (2) Implement a 28-inch (71.1 cm) minimum size limit for the recreational and commercial striped bass fisheries in the EEZ;
- (3) Allow states the ability to adopt more restrictive rules for fishermen and vessels licensed in their jurisdiction;
- (4) Implement a recreational bag limit of 2 fish per day;
- (5) Require circle hooks for all commercial and recreational hook and line fishing using bait; and
- (6) Adopt one of the following commercial trip limits:

**Option 2a** – a commercial trip limit (per trip or day, whichever is greater) of 30\* fish for hook and line fisheries, and 50\* fish for all net gears; or

**Option 2b** – a commercial trip limit of 30 fish per trip or day, whichever is greater, for hook and line fisheries and a commercial bycatch trip limit for all net fisheries of no more than 20%, by weight, of all other species on board or up to 50 fish, whichever is less.

\*Note: if this option is adopted – the trip limit included in the implementing rule may be less than 50 fish for net gear, or 30 fish for hook and line gears, if all states have implemented lower trip limits in state waters by the time of rulemaking. Under this discussion, Option 2 refers to the recreational component of this option (measures 1 through 6 above), except for circle hooks for all commercial hook and line fishing using bait; Options 2a and 2b refer to the commercial component of this option, i.e., commercial trip limits; and the Overall Option 2 refers to the total option, i.e., Options 2, 2a, and 2b.

## **1. Ecological Impacts**

Options 2a or 2b would not be expected to result in any significant environmental impacts because of the restrictive fishing controls already implemented by the states under Amendment 6, and the additional catch limits this option would impose on EEZ striped bass fishing. Specifically, this option could result in increased fishing pressure in the EEZ, as well as increased pressure on the stock in general. However, any increased EEZ effort will likely be minimal and largely offset by an equally small decrease in nearshore fishing effort, and that the option would likely not increase fishing pressure on the stock, but in fact, might result in some small decrease in effort in some areas.

Option 1 provides only basic guidance relative to regulations in the EEZ, i.e., to open it, to implement the current minimum size standard contained in Amendment 6, and to support the effectiveness of state regulations. Options 2a or 2b are based on the ASMFC Recommendation (Option 1) but add measures, to both the commercial and recreational fisheries in the EEZ, designed to support the management standards contained in Amendment 6. It also addresses concerns about increased mortality, if additional recreational effort were to occur in the EEZ, by requiring circle hooks, which are known to reduce hook-related discard mortality. Options 2a or 2b are equitable in that they would require both recreational and commercial hook and line fisheries to use the same equipment.

Options 2a and 2b would establish, in addition to ASMFC Recommendation in Option 1, requirements for catch limits, circle hooks for hook and line fisheries using bait, and a 2-fish recreational bag limit. The difference between Option 2a and 2b is the selection of a commercial catch limits for the EEZ. Option 2a would allow a commercial trip limit of 30 fish per trip or day (the current state maximum), whichever is greater, for hook and line gears, and a 50 fish per trip or day, whichever is greater, for all commercial net gears. While, Option 2 would require a commercial trip limit of 30 fish per trip or day, whichever is greater, for hook and line gears; all net fisheries would be restricted to a commercial bycatch trip limit of no more than 20%, by weight, of all other species on board or up to 50 fish, whichever is less. Preventing expansion of a directed fishery into the EEZ would provide better support to the states in maintaining commercial landings within the quota.

### **a. Commercial Fishery Impacts**

Option 2a would allow commercial gears such as, otter trawls, hook and line, and anchored and drift gillnets that currently fish in state waters to direct effort on striped bass in the EEZ, so long as they are allowed by state regulations to do so; they stay within the state's trip limits; and the state's quota allocation has not been reached. This option would have essentially the same ecological impacts as described for Option 1, above, for the commercial net fisheries, in that the trip limit matches the maximum allowed by any state, it contains no additional restrictions, and more restrictive state regulations would apply. However, for the commercial hook and line fisheries, the requirement for the use of circle hooks is expected to result in a significant reduction in mortality of striped bass, as well as other species, caught as bycatch while fishing

for striped bass, as noted above for the recreational fishery. Impacts on essential fish habitat and interactions with protected resources would be identical to those identified for Option 1, for the net fisheries; and the same as recreational impacts for the hook and line fisheries.

Option 2b would implement identical measures and have the same impacts as contemplated in Option 2a, for the hook and line fishery, in that current state regulations limit catch to a maximum of 30 fish. However, this option would further restrict commercial net fisheries for striped bass in the EEZ to a bycatch-only fishery. For those vessels using trawls or gillnets, which would be allowed under state regulations to retain striped bass caught in the EEZ, Option 2b would prevent a directed striped bass fishery by requiring that a minimum of 80% of catch, by weight, on any trip be comprised of other species. The 20% bycatch limit is based on a review of state net fishery landings records where the trips were identified as being directed at species other than striped bass. Those data indicated that vessels directing effort on other species might expect to take as much as 20%, by weight in striped bass, incidentally to directed catch. By allowing that percentage level of landings, while not exceeding the 50 fish limit, this option would prevent development of a directed net fishery for striped bass in the EEZ, while reducing discard mortality attributed to striped bass bycatch in those fisheries, where allowed by state regulation. In 2004, commercial discard mortality for striped bass was estimated to be about 519,000 fish, though the portion of that number that was taken in the EEZ rather than state waters is not known. However, even if bycatch were allowed to be retained if taken in the EEZ, vessels may be required to discard striped bass under more restrictive state regulations, or if the state's quota has already been achieved, thus reducing the benefits of allowing bycatch retention from the EEZ. Impacts on essential fish habitat and interactions with protected resources, under Option 2b would be the same, or perhaps less than expected under Option 1, or Option 2a because there would be no directed net effort for striped bass in the EEZ; any catch or harvest of striped bass from the EEZ net fisheries would be as bycatch in fisheries and on trips already occurring in the EEZ for other species.

## **b. Recreational Fishery Impacts**

For the recreational sector, Option 2 is essentially the same as Option 1, in that most states have the same or more restrictive bag limits for striped bass than the 2-fish limit contemplated here. However, the requirement for the use of circle hooks is expected to result in a significant reduction in mortality of striped bass, as well as other species, caught and released while fishing for striped bass. On average, about 8% of finfish, released during hook and line fishing, are assumed to die. In recent years, recreational discard mortality for striped bass has been estimated at over 1 million fish, annually. The extent to which circle hooks would reduce that number is not known, though information from studies conducted on this type of hook suggest it could be significant. Impacts of the recreational fishery on essential fish habitat would be identical to those identified for Option 1. Impacts of the recreational fishery on interactions with protected resources may be reduced, given that the use of circle hooks would reduce the likelihood of hook mortality for sea turtles, as documented in several studies.



### **c. Summary of Ecological Impacts**

The Overall Option 2 is not likely to result in significant adverse impacts to striped bass due to commercial or recreational fishing, and it provides safe guards against the possibility for increased mortality in the EEZ, should state regulations change in the future. This option includes provisions for commercial or recreational catch limits, and therefore specifically addresses concerns raised during the public comment and scoping process on increased effort and/or directed fishing for striped bass in the EEZ. An identified weakness of the ASMFC Recommendation (Option 1) is that it is silent on the issue of bag or trip limits for recreational and commercial fishermen, who may chose to fish for striped bass in the EEZ. In order to fully support the ability of the states to adopt more restrictive measures for their fishermen, and to prevent significant increases or shifts in distribution of effort in the striped bass fishery to the EEZ, Overall Option 2 includes a daily or trip limits for both commercial and recreational fishers in any regulations that would open the EEZ to the fishing for or harvest of striped bass. Option 2a relies on more restrictive state measures to prevent increased striped bass harvest from the EEZ, by capping trip limits at the coastwide maximums for net and hook and line gear. Option 2b provides additional protection against a significant increase in striped bass harvest in the EEZ by restricting vessels using net gear to a bycatch-only fishery. The requirement that 80% or more of the fish landed from a trip be species other than striped bass should prevent net vessels from shifting to the EEZ to fish for striped bass.

### **2. Economic Impacts**

Options 2a and 2b potentially add additional management measures beyond Option 1 for both the commercial and recreational fisheries. Option 2 is more specific in reducing mortality through the use of circle hooks, which are considered to reduce hook-related discard mortality. This option is equitable in that it requires both recreational and commercial hook and line fisheries to use the same equipment. Size limits for commercial and recreationally caught striped bass remain the same as in Option 1, although this option contains a 2-fish striped bass recreational bag limit, which is consistent with that set forth in Amendment 6.

As with Option 1, there is not expected to be any additional economic impact to the recreational fisheries by restricting the type of hook that could be used to circle hooks only. Circle hooks cost the same as standard “J” hooks. Effort levels and areas fished in the EEZ would not change because of this requirement. In addition, some states already require, or are considering requiring the use of circle hooks when fishing for striped bass. Amendment 6 encourages the use of circle hooks as a recommended measure and includes the possible mandatory use in the recreational fishery as a measure subject to change. In addition, ASMFC published in July 2003 Special Report No. 77 titled Circle Hook Definition and Research Issues (See ASMFC’s website <http://www.asmfc.org> under *Publications-Special Reports-SR #77*).

Option 2a would allow commercial vessels to use otter trawls, hook and line, and anchored and drift gillnets currently used in state waters to catch and retain striped bass in the EEZ. Under this option, a few vessels may enter the EEZ to catch and retain striped bass up to the 50 fish trip limit. The number of vessels that would do so is expected to be very small; they are currently harvesting their total quotas from 0 to 3 nm offshore, where the majority of striped bass are

found. Vessels that take striped bass in the EEZ as bycatch, and must now discard them, could benefit from the ability to land up to 50 fish, if their state allows such landings. The economic impacts of any fishing in the EEZ would be difficult to analyze, since no vessel has legally directed on striped bass in the EEZ since the moratorium began, in 1990. The economic impacts would not be expected to be significant, given the state regulations and quotas, which govern the commercial fisheries that currently catch and discard striped bass. If a state's regulations allowed for the striped bass to be caught and retained under these management measures, there could be some positive economic impact, but given the numbers of fish per trip, the impact would be minimal. However, where allowed by state regulations, landings from the EEZ may result in the quota being reached and the season closed earlier than would otherwise occur, such that those vessels, which remain within state waters and rely on striped bass landings may be negatively impacted.

Option 2b would allow the same gear use as Option 2a, but would limit the commercial net fisheries to striped bass bycatch, only, by restricting their harvest to no more than 20% by weight, of their total catch, up to a 50 striped bass limit, whichever is less. The economic impacts of Option 2b are expected to be the same as for Option 2a. Landing of some amount of bycatch from the EEZ would provide some small economic benefit to those vessels, which are able to take advantage of the bycatch limit, while vessels fishing for striped bass in state waters may lose some economic benefit once the quota is reached. Current state restrictions are such that vessels in most states would be restricted to significantly less than the 50 fish trip limit considered in either Option 2a or 2b. Option 2b is intended to prevent vessels, permitted to land 50 fish, from shifting to the EEZ solely to harvest that maximum trip limit rather than merely keeping those striped bass taken while directing on other species.

### **3. Social Impacts**

The Overall Option 2 may allow some commercial vessels currently directing their fishing on other finfish in the EEZ to retain striped bass that at present are discarded. The retention and landing of these striped bass under both Options 2a and 2b would, however, be controlled by existing state regulations and state quotas. As such, Options 2a and 2b, like Option 1, are not expected to have any significant social impact beyond the existing status quo for commercial fishers. For recreational fishers, however, there may be some initial concern regarding the required use of circle hooks, which require different techniques relative to hooking a fish compared with standard J-hooks. However, the ability to keep a limited number of striped bass caught in the EEZ is likely to have a positive social impact for recreational anglers, especially for those fishing on traditional striped bass fishing grounds, as noted above.

#### **C. Option 3 - Modified ASMFC Recommendation, incorporating catch limits and gear restrictions**

Option 3 would adopt the ASMFC Recommendation with the additional restriction of hook and line fishing, only, as follows:

- (1) Remove the moratorium on the harvest and possession of striped bass in the EEZ;

- (2) Implement a 28-inch (71.1 cm) minimum size limit for the recreational and commercial striped bass fisheries in the EEZ;
- (3) Allow states the ability to adopt more restrictive rules for fishermen and vessels licensed in their jurisdiction; plus
- (4) Allow hook and line gear, only;
- (5) Require circle hooks for all commercial or recreational hook and line fishing using bait;
- (6) Implement a recreational bag limit of 2 fish per day; and
- (7) Implement a commercial trip limit of 30\* fish per trip or day, whichever is greater.

\*Note: if this option were adopted – the trip limit included in the implementing rule may be less than 30 fish, if all states have implemented a lower trip limit for hook and line gear in state waters by the time of rulemaking.

## **1. Ecological Impacts**

Option 3 incorporates the basic ASMFC Recommendation in Option 1 to open the EEZ with a 28-inch minimum size and to allow more restrictive state measures to apply to their vessels and fisherman, but also restricts any EEZ striped bass fishing or harvest to hook and line gear, only, and the use of circle hooks when fishing with bait. This option would provide for greater reductions in ecological impacts to striped bass, other finfish species, and essential fish habitat, and to interactions with protected species, than if a directed commercial net fishery were to be allowed to develop for striped bass in the EEZ (as may occur if Options 1 or 2a were implemented). Specifically, use of hook and line gear, especially with a requirement for circle hook use, would reduce discard mortality for both striped bass and other species, including protected resources, which may be discarded as bycatch in a directed fishery (as noted in Section III(B)(1)).

### **a. Commercial Fishery Impacts**

Option 3 is not expected to result in an increase in commercial effort because state quotas would not increase and more restrictive state regulations related to seasons and trip limits would apply to vessels registered in a state. Fishing for striped bass with other gear types would continue, as allowed, in state waters.

However, Option 3 does not address discard mortality associated with the bycatch of striped bass, taken in net gears. This option would be equivalent to the status quo (an EEZ closed to striped bass fishing and harvest, see Section III(D)(1), below) for trawl and gillnet gears, and would result in the continuation of the requirement to discard all striped bass bycatch from those gears. Such discarded bycatch would not be counted toward a state's quota, yet some percentage of that discard would die. As noted in Section III(B)(1)(a), commercial discards account for the loss of hundreds of thousands of fish each year. The conversion of such amounts of discards as state regulations may allow, to landings, which would count toward a state's quota, would result in a decrease in fishing mortality to reach that quota.

Option 3 has the same commercial trip limit of 30 fish for hook and line gear as considered in Options 2a or 2b. The 30 fish limit supports state management since this is the greatest striped bass trip limit for hook and line gear currently allowed along the Atlantic coast (in Massachusetts). Vessels not currently rigged for hook and line fishing are not likely to be converted to do so for a 30-fish commercial trip limit. In addition, state regulations for fishing for striped bass are very restrictive, with state quotas often allocated to gear types, and often requiring a commercial fishing license and striped bass permit or endorsement. Striped bass permits are often non-transferable, limited in number or subject to control dates, in most states. However, there likely would be some number of commercial hook and line vessels shifting effort into the EEZ to direct on striped bass even with 30 fish trip limit, especially off Massachusetts because an historical fishery operated off Cape Cod and the Islands, prior to the closing of the EEZ in 1990.

#### **b. Recreational Fishery Impacts**

For the recreational sector, Option 3 is the same as Options 2a or 2b (see Section III(B)(1)(b), above). The requirement for the use of circle hooks is expected to result in a significant reduction in mortality of striped bass, as well as other species, caught and released while fishing for striped bass. Impacts on essential fish habitat and interactions with protected resources would be identical to those identified for Options 2a or 2b.

### **2. Economic Impacts**

Option 3 is identical to Options 2a or 2b, for the recreational fishery. There is not expected to be additional economic impact, relative to Option 1, to the recreational fisheries by restricting the type of hook that could be used to circle hooks only. Effort levels and areas fished in the EEZ would not change because of this requirement.

Option 3 restricts commercial vessels to the use of hook and line fishing with circle hooks only. The use of otter trawls and anchored and drift gillnets that are currently used in state waters would be prohibited to catch and retain striped bass in the EEZ; for those vessels, Option 3 is equivalent to the status quo. Under this option, vessels rigged to fish with hook and line may enter the EEZ to catch and retain striped bass up to the 30 fish trip limit, especially in areas such as off Cape Cod and Nantucket Island, southern New Jersey and North Carolina, where traditional fishing grounds are found in the EEZ. However, the number of vessels that would do so is expected to be small since quotas are currently achieved within state waters from 0 to 3 nm offshore where the majority of striped bass are found. Analyses of the economic impacts of any fishing in the EEZ are complicated by the fact that no vessel has directed on striped bass in the EEZ since the moratorium began in 1990. The economic impacts would not be expected to be significant, given the state regulations and quotas, which govern the commercial fisheries that currently catch and discard striped bass. If a state's regulations allowed for the striped bass to be caught and retained under these management measures, there could be some positive economic impact for hook and line fishers, but given the small number of fish allowed per trip, the impact would be minimal.

### **3. Social Impacts**

Option 3 may allow some commercial vessels currently fishing with hook and line gear and directing their fishing on other finfish in the EEZ to retain striped bass that are currently discarded. In addition, hook and line vessels currently fishing for striped bass in state waters could move to the EEZ for some portion of their quota. The retention and landing of these striped bass would, however, be controlled by existing state regulations and state quotas. As such, this option, like Options 1, 2a or 2b, is not expected to have any significant social impact beyond the status quo for commercial fishers. However, the ability to keep a limited number of striped bass caught in the EEZ is likely to have a positive social impact for recreational anglers, especially for those fishing on traditional striped bass fishing grounds, as noted in Sections III(A)(3) and III(B)(3), above.

## **D. Option 4 - No Action - status quo – maintain moratorium in EEZ**

Option 4 would take no Federal action and would therefore continue the moratorium on the harvest or possession of striped bass in the EEZ that has been in place since 1990. This option would not respond to the ASMFC request for Federal action in the EEZ.

### **1. Ecological Impacts**

This option would take no Federal action and would continue the moratorium, implemented in 1990, on the harvest or possession of striped bass in the EEZ. The current bycatch of striped bass in the various directed fisheries would continue.

With no change to the fishery, there would be no change in the number of protected species interactions or to the essential fish habitat.

### **2. Economic Impacts**

This option would take no Federal action and would continue the 1990 moratorium against the harvest or possession by commercial and recreational fishermen of any striped bass in the EEZ. As striped bass will continue to be discarded as bycatch in the EEZ, there would be no economic impact beyond existing conditions. See Sections III(A)(2), III(B)(2), and III(C)(2), for comparisons to other options.

### **3. Social Impacts**

As this option would continue the moratorium on the catching and retention of striped bass in the EEZ by commercial and recreational fishermen, there would be no social impacts on either sector beyond the current status quo.

## **IV. Habitat and Protected Species Impacts**

### **A. Impacts on Essential Fish Habitat**

A characterization of fishing practices within the Northeast U.S. and an evaluation of the potential effects on essential fish habitats (EFH) were made by Stevenson et.al. (2004) (see NOAA Technical Memorandum NMFS-NE-181 at <http://www.nefsc.noaa.gov/nefsc/publications/tm/tm181/index.htm>). They summarized relevant scientific literature and described fishing gears and their use by area, while evaluating the vulnerability of benthic habitats described as “essential” for 43 federally managed species. This report concludes with a matrix of benthic life stages describing the vulnerability of fish habitats to various fishing gears. Pot/traps and lines were found to have the least impact of the gear types examined, while mobile bottom-tending gears, such as otter trawls, were thought to be the greatest concern for vulnerability to benthic fish habitats. Otter trawls catch most of the fishery landings throughout the Northeast region. Within the recreational fisheries sector, the primary fishing gear is hook and line, which the Stevenson report considers to be among the fishing gears least likely to have a detrimental effect on fish habitats.

Impacts on habitats that may occur by opening Federal waters to the catch and retention of striped bass have already been considered when regulations were implemented for existing EEZ fisheries using the gears likely to take striped bass. Currently, vessels fishing in the EEZ while using various gears, including otter trawl, gillnet, and hook and line, report catches of striped bass. In addition, striped bass have been reported to be taken in fisheries directed at: Atlantic mackerel, winter flounder, cod, haddock, yellowtail flounder, mixed groundfish, spiny dogfish and weakfish. These fisheries, and others that allow fishing gear known to catch striped bass, are managed under FMPs developed by the: New England Fishery Management Council (Northeast Multispecies, Northeast Skate, Atlantic Herring, Monkfish, Atlantic Salmon and Atlantic Sea Scallop); the Mid-Atlantic Council (Summer Flounder, Atlantic Bluefish, Spiny Dogfish, and Atlantic Mackerel, Squid, and Butterfish); the Secretary (Atlantic Billfish and Atlantic Tunas, Swordfish, and Sharks); and the ASMFC (Weakfish, where EEZ regulations have been implemented by the Secretary).

None of the actions considered in this document are expected to adversely affect fish habitat because they are not expected to result in an increase in fishing effort. The proposed recreational measures are sufficiently restrictive that they should not result in any incentive for new or added effort. In addition, the recreational fishery is conducted almost exclusively with hook and line gear, considered to have minimal effect on habitat. Further, commercial measures under consideration are similarly restrictive so the commercial catch would remain as largely bycatch and not result in any new and/or directed effort. Accordingly, at most, some small amount of existing effort may shift from inshore areas out into the EEZ, but any such shift is not expected to be significant and would not result in an increase in effort by any of the gear types involved in the fishery. In addition, effort and related habitat impacts may be reduced in some areas if vessels are allowed to retain striped bass caught in the EEZ. This would occur if vessels were not required to discard striped bass in the EEZ only to move to state waters to make additional tows to catch fish they would be allowed to keep under state quota allocations and regulations.

The commercial sector would continue traditional fishing patterns targeting other species, and the areas fished would not be expected to change.

Specifically, the ASMFC's Recommendation in Option 1 and Options 2a, 2b, and 3 that include catch and/or gear limits are compatible with state regulations and would control the fishery at current overall effort levels. These options would allow some harvest of striped bass for which fishing effort has already been expended and that would otherwise be discarded under current regulations (bycatch). In addition, some directed fishing for striped bass may occur under Options 1 and 2a for all gear types, and for hook and line gear under Option 3. However, the extent of any such directed fishing would be severely curtailed by more restrictive state regulations on vessels from their state. Options 2a, 2b, and 3 with catch and with catch and gear limits would go beyond the initial ASMFC request in that they set a recreational bag limit consistent with the coastwide standard included in the ISFMP, and a commercial harvest level consistent with the current state maximum for commercial fishermen. Such measures would not encourage development of a directed fishery for striped bass, and Option 2b would prevent directed fishing, except by hook and line, which has been determined to have no significant impact on EFH.

## **B. Impacts on Protected Species**

The striped bass fishery interacts with protected species in a manner typical of the gear type used. That is, hook and line gear and long lines will interact with turtles who either become fouled in the line or who become hooked as the animal attempts to take the bait. Turtles also may be caught in mobile gear or ensnared in gill net, and gill netting and its anchor lines have been documented as tangling large whales. Such interactions that may occur by opening Federal waters to the catch and retention of striped bass, however, have already been considered when regulations were implemented for existing EEZ fisheries using the gears likely to take striped bass. As such, an action to allow the retention of limited amounts of striped bass caught by commercial and recreational fishermen in the EEZ is not likely to adversely affect listed species or modify critical habitat.

The primary gears used to fish for striped bass in coastal waters, and those likely to be used in the EEZ if it were to be opened, are hook and line, trawls, and gillnets. Data reported in Amendment 6, from 133 observed striped bass gillnet trips during 1996-2000 recorded only 1 bottlenose dolphin, released dead off VA, in 1999. In addition, data from the ASMFC show no marine mammals interacting with striped bass fisheries, though the database did include records of bycatch of other protected species in fisheries that took striped bass. These include seabirds, Atlantic and shortnose sturgeon and Atlantic salmon, taken in Maryland fixed net, gillnet, and trawl gear, which also caught striped bass. Bycatch of sea turtles, Atlantic and shortnose sturgeons and Atlantic salmon was also recorded in data from New York fixed net and trawl gear, which also took striped bass.

Impacts on protected resources that may occur by opening Federal waters to the catch and retention of striped bass have already been considered when regulations were implemented for existing EEZ fisheries using the gears likely to take striped bass. Any striped bass caught and retained, would be taken with gears authorized for use in a number of fisheries managed under

existing FMPs, for which Section 7 Consultations have already been completed. The gears expected to catch striped bass include otter trawl, gillnet, and hook and line. The fisheries using these gears are managed under FMPs developed by the: New England Fishery Management Council (Northeast Multispecies, Northeast Skate, Atlantic Herring, Monkfish, Atlantic Salmon and Atlantic Sea Scallop); the Mid-Atlantic Council (Summer Flounder, Atlantic Bluefish, Spiny Dogfish, and Atlantic Mackerel, Squid, and Butterfish); the Secretary (Atlantic Billfish and Atlantic Tunas, Swordfish, and Sharks); and the ASMFC (Weakfish, where EEZ regulations have been implemented by the Secretary). The rules developed under each of the above FMPs, regulating commercial and recreational fishing gear likely to be used to catch striped bass, have been implemented under existing Section 7 Consultations, and thus have been reviewed to determine and limit the impacts of these fishing gears on the condition of protected resources.

None of the proposed options are expected to alter fishing practices or fishing effort and will not have impacts not previously considered on endangered or threatened species, marine mammals, or critical habitat of these species. While proposed options other than the no action option would increase the amount of striped bass bycatch allowed to be landed in some states, by both commercial and recreational fishermen, it will not result in increased fishing effort or significant changes in fishing practices, as described above. Thus, no increased interactions with or impacts to critical habitat of sea turtles or other protected species are anticipated.

None of the proposed options are expected to adversely affect listed species or modify critical habitat because they are not expected to result in an increase in fishing effort. The proposed recreational measures are sufficiently restrictive that they will not result in any incentive for new or added effort. Further, the proposed commercial measures are similarly restrictive so the commercial catch would remain as largely bycatch and not result in any new and/or directed effort. Accordingly, at most, some small amount of existing effort may shift from inshore reaches out into the EEZ, but such a result - the dissipation might actually benefit listed species - is not expected to be significant and, in any event, would not result in an increase in effort.

None of the options would likely create a new directed fishery in the EEZ. ASMFC's recommendation in Option 1 and Options 2a, 2b, and 3 that include catch and/or gear limits are compatible with state regulations and would control the fishery at current effort levels. These options would allow some harvest of striped bass for which fishing effort has already been expended and that would otherwise be discarded under current regulations. Options 2a, 2b, and 3 with the catch and with the catch and gear limits would go beyond the initial ASMFC request in that they set a recreational bag limit consistent with the coastwide standard included in the ISFMP, and a commercial harvest level consistent with the current state maximum level for commercial fishermen. Such measures should not encourage development of a directed fishery for striped bass and would not provide incentive for a shift of effort into the EEZ.

Maine, New Hampshire, Connecticut, New Jersey, Washington D.C., and Pennsylvania ban the commercial harvest or sale of striped bass. Under any of the options, opening the EEZ adjacent to these states would have no effect on the existing commercial fisheries of those states, as more restrictive state regulations would continue to prohibit the commercial fishermen and vessels of these states from landing striped bass.



The States of Massachusetts, Rhode Island, New York, Delaware, Maryland, Virginia, and North Carolina permit commercial fishing for striped bass, but under very restrictive management regimes, which include limited entry programs, gear restrictions, short harvest seasons, limited harvest per trip, and tag and permit programs. Given these state restrictions, and because the level of striped bass that could be retained during any trip to the EEZ under the options being considered would be so minimal as to preclude a directed fishery, commercial fishing effort is not expected to increase if striped bass harvest were allowed in the EEZ. In addition, states continue to reach their annual quotas while fishing within state waters so there would be little economic incentive for vessels to move further offshore to reach their trip limits. Historically, prior to the 1990 closure of the EEZ, only about 6% of commercial striped bass landings were reported to have been from the EEZ.

Recreational private, head and charter vessels also would be allowed to fish for and retain striped bass in the EEZ, if it were opened. However, there is not expected to be an increase in overall recreational effort, or a significant shift in recreational effort to the EEZ. The same recreational bag (2-fish per day) and size (28 inch minimum length) limits, as are currently the coastwide standards for state waters, would apply to striped bass caught in the EEZ. Given that anglers are already catching their limit in state waters, there would be no regulatory incentive for anglers to incur the additional costs and hazards associated with a move offshore from state to Federal waters. Anglers who currently fish in the EEZ for other species, such as bluefish and summer flounder, and cannot retain striped bass, would be able to do so, and anglers could choose to target striped bass in the EEZ, if it were to be opened. However, the majority of those anglers are currently fishing in the EEZ for other species, regardless of whether striped bass are harvested. Some anglers who specifically direct their effort to striped bass may shift from state to Federal waters, but that number is expected to be low. In fact, only 2.5% of charter boat operators interviewed indicate that they would shift effort to the EEZ solely for the purpose of allowing patrons to retain striped bass.

All Atlantic coastal states have very restrictive regulations on the taking and landing of striped bass in their respective state waters, which includes the ocean out to three miles. Commercial landings are restricted by quotas or total allowable catch limits, size limits, gear restrictions, and often, seasonal limits. Some states also use a tag system to restrict catches by individuals, and to help monitor overall commercial catches to ensure compliance with the state quotas. The recreational fisheries are also subject to restrictive regulations; most states use a combination of seasonal limits, creel limits, and size restrictions.

The options under consideration, to open Atlantic Federal waters to the catch and retention of striped bass by commercial and recreational fishermen, will not change the existing exposure and risk to protected resources and critical habitats that have not already been considered in existing Section 7 consultations. The effort level, catch and effort patterns, gear types, and fishing practices in existing fisheries would not change, as restrictive Federal and state trip limits would not provide for a commercial fishery directed solely for striped bass in Federal waters. Some small amount of recreational effort may dissipate into the EEZ, but to whatever small extent it does, effort in the nearshore reaches will decrease by an equal amount. The implementation of the suggested management measures will not affect the geographic area of the fishery (Maine to

North Carolina), nor will they affect the temporal distribution of existing fishing effort based on existing regulations for those fisheries.

**Table 1. Summary of Management Measures Under Each Option**

Management Measures	Options				
	1	2a	2b	3	4
Remove moratorium	X	X	X	X	
Implement 28-inch minimum size for recreational and commercial sectors	X	X	X	X	
Allow states the ability to adopt more restrictive rules for fishermen and vessels licensed in their jurisdiction	X	X	X	X	
Implement recreational bag limit of 2 fish per day		X	X	X	
Require circle hooks for all recreational and commercial hook and line fishing using bait		X	X	X	
Commercial trip limit of 50 fish per trip or day, whichever is greater for all commercial gears		X			
Commercial trip limit of 30 fish per trip or day, whichever is greater for hook and line fisheries, and a commercial bycatch trip limit for all net fisheries of no more than 20%, by weight, of all other species on board or up to 50 fish, whichever is less			X		
Restrict gear to hook and line only				X	
Commercial trip limit of 30 fish per trip or day, whichever is greater				X	
Status quo – no change					X

## Appendix 1. Measures Considered but not Further Analyzed

The following management measures suggested during the scoping process were not chosen as options in this draft document for the reasons listed below:

Management Measure	Reason for not analyzing further
Open EEZ with no restrictions	Measure might not meet the requirements or the intent of the Striped Bass Act; it does not provide for alternative management measures in the EEZ to ensure that the conservation and management goals in Amendment 6 would be achieved; it is not compatible with ASMFC's ISFMP and recommendations to the Secretary; it does not ensure the effectiveness of State regulations on fishing for Atlantic striped bass within the coastal waters of a coastal state.
Recreational fishing, only	Measure might not meet the requirements or the intent of the Striped Bass Act or the goal of the ASMFC's ISFMP, which recognize the importance of both commercial and recreational fisheries.
Catch and release, only	Measure might not meet the requirements or the intent of the Striped Bass Act or the goal of the ASMFC's ISFMP, which recognize the importance of both commercial and recreational fisheries. It does not meet the purpose and need of the action; it doesn't address the socio-economic objective of utilization of a restored stock; it does not minimize waste since it would likely increase recreational discard mortality.
Minimum sizes, other than 28"	Measure might not meet the requirements or intent of the Striped Bass Act; it would not be compatible with coastwide minimum size standard of 28" contained in ASMFC's ISFMP and the recommendation to the Secretary. While states may modify minimum size based on conservation equivalency provisions in the ISFMP, a single minimum size in the EEZ would facilitate enforcement efforts.
Prohibit gill nets	Measure might not meet the requirements or the intent of the Striped Bass Act; it does not meet the socio-economic objective of utilization of a restored striped bass stock and would not minimize waste since all bycatch from this gear would continue to be discarded.
Open the EEZ and apply state regulations to the fishery in the EEZ	Measure might not meet the mandates of the Striped Bass Act, which require that the Secretary promulgate regulations governing fishing for striped bass in the EEZ. However, the Federal government would not preempt the states if they wish to regulate the activities of their own citizens in Federal waters, so long as state regulations do not effect (are not less restrictive than) Federal regulations.
Season/area closures	Identifying appropriate areas or seasons for closures that would support the purpose and need for this action is not possible at this time. There has not been a directed fishery in the EEZ, since 1990, therefore, there is no basis to determine when or where such closures would be most beneficial to the stock. Arbitrary closures would not meet the socio-economic objective of utilization of a restored striped bass stock.